

## MEMORANDUM

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**To:** Valmichael Leos and Barbara Nann  
U.S. Environmental Protection Agency

**Date:** February 21, 2012

**From:** John Laplante, John Verduin, Wendell Mears,  
and David Keith, Anchor QEA

**Project:** 090557-01

**Cc:** Gary Miller, USEPA  
Philip Slowiak, IP  
Andrew Shafer, March Smith,  
and David Moreira, MIMC

**Re:** Post TCRA Quarterly Inspection Report - January 2012 Inspection

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### Background

The TCRA was implemented by International Paper Company (IP) and McGinnes Industrial Maintenance Corporation (MIMC) under an Administrative Settlement Agreement and Order on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA) – Docket No. 06-12-10, April 2010 (USEPA 2010). A full description of the TCRA implementation is provided in the associated project documentation:

- Removal Action Work Plan (RAWP; Anchor QEA 2010, 2011a)
- Removal Action Completion Report (RACR; Anchor QEA 2011b)

This document reports the results of the quarterly inspection conducted in January 2012 for the San Jacinto River Waste Pits (SJRWP) Time Critical Removal Action (TCRA) as required by the schedule established in the Operations, Monitoring, and Maintenance (OMM) Plan (Appendix N – Anchor QEA 2011b). The OMM Plan specifies the timing, pertinent items, tolerances, and procedures for inspection and repair of the protective cover, fencing, and signage installed for the TCRA at the San Jacinto River Waste Pits Superfund Site (Site) in Harris County, Texas (Figure 1).

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## **Monitoring**

The purpose of this report is to document the inspection of the protective cover, fencing, and signage installed as part of the TCRA. The inspections evaluate and report the conditions of the following TCRA elements:

- Visual inspection of the security fence and signage surrounding the Site.
- Visual inspection of the armored cap located above the water surface.
- Visual confirmation that waste materials are not being actively eroded into the San Jacinto River (River).
- Collection of survey data for the armored cap to compare the current cap thickness with the post-construction baseline condition.
- Manual probing of armored cap thickness at contiguous areas identified by the monitoring survey as more than 6 inches lower in elevation than the baseline survey.

## **Visual Inspection**

Visual inspections of the Site followed the layout shown in Figure 2. Multiple inspections occurred during January 2012 during seasonally low tide events. Photographs of Site conditions observed during the inspections are provided in Appendix A (Figures A-1 to A-13). All visible portions of the armor cap were observed to be intact; there was no observed evidence of materials being eroded into the River and there was no damage noted to on-site fencing or signage. The following bullet list provides the dates of the visual inspection events covered by this report:

- January 5, 2012 – Armor Cap Visual Inspection
- January 18 and 19, 2012 – Perimeter Fencing and Signage Visual Inspection

## **Armored Cap**

The upland portions of the armored cap were visually inspected on January 5, 2012. Photographs from the inspection event are provided in Appendix A (Photographs 01-14). None of the visible portions of the armored cap were identified as having been breached or otherwise damaged. Several of the photographs provide armored cap visual inspection for areas that could not be surveyed, as explained in Section 3 – Surveys. As shown in photographs taken along the eastern boundary of the Eastern Cell (Photographs 04, 08 thru 10, and 12 thru 14) no movement or erosion of waste materials into the River was observed.

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There were no significant rainfall, flood, or tropical events during the period between the final walkthrough in September 2011 and the inspections that occurred in January 2012.

## **Perimeter Fencing**

The perimeter fencing (Figure 2) on the west and east banks of the River were visually inspected on January 18, 2012, for breaches or other signs of damage. Breaches and other signs of fence damage were not observed on this date.

The condition of the fence terminus on the east bank of the River south of the U.S. Interstate Highway 10 Bridge has not changed since the final walk through in September 2011 conducted with the USEPA (Photograph 33). The fence in this area was damaged during TCRA implementation and as a result of a barge operating in the nearshore area. Previous documentation of the damage can be found in one of the TCRA Daily Construction Reports (Report No. 079 – Tuesday, April 12, 2011; Photograph 4). Due to the potential hazard to navigation and the downstream property owner, Coastal Water Authority, securing their property boundary along the Lynchburg Ferry Road with a chain link fence constructed in late 2011, this fence section is redundant and will not be reconstructed or discussed in subsequent inspection reports.

The portion of the fence installed along the south boundary of the San Jacinto River Fleet (SJRF) property is not included in the fencing inspection, as it is currently an active facility that conducts daily security checks, as required by the U.S. Coast Guard and Transportation Security Administration, for an active maritime fleeting area.

## **Signage**

“Danger” and “No Trespassing” signs are posted at regular intervals (see photographs 50-52 for examples) on the perimeter (Photograph 47) fencing surrounding the Site. An inspection on January 18, 2012, verified that these signs are still in place (Appendix A photographs 18, 19, and 23). In addition, a total of fifteen “Danger” and “No Trespassing” signs were installed at the Site around the perimeter of the Western Cell; the signs are mounted on steel posts and set in concrete pads (see photographs 50-52 for examples). Some of these signs rotated in the wind; they were re-aligned to the intended viewing perspective. The U-brackets fastening each of the signs to the posts were tightened to provide additional resistance to the wind. Table 1 summarizes the condition of the Western Cell perimeter signs. The sign conditions documented during the inspection event are provided in Appendix A.

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Three USEPA Public Notice signs are present around the Site (Photograph 47), 1) located near the gate entry point for the perimeter fence north of I-10; 2) near a gate entry point south of I-10; and 3) at the end of the TxDOT right-of-way north of I-10 near the San Jacinto River. These three signs were observed to be in place and undamaged.

**Table 1****TCRA Perimeter Fencing and Sign Inspection Punch List**

Task	Status	
	Completed	Date
<b>Perimeter Fence</b> Visually inspect the perimeter fencing on the east and west sides of the San Jacinto River.	Yes	1/18/2012
<b>"Danger" and "No Trespassing" Signs</b> Visually inspect the 15 signs to verify that they remain in place.	Yes	1/18-1/19, 2012

## Surveys

Portions of the armored cap above the water surface or at a water depth too shallow to access by boat were surveyed using land-based topographic survey techniques. A bathymetric survey was performed for the portions of the armored cap that are below the water surface and accessible by boat. The surveyor followed the track line spacing, measurement intervals, and accuracy requirements detailed in the OMM Plan.

Small areas in the intertidal zone were not safely accessible by either topographic or bathymetric methods (Figure 3). Seasonally low tides with north winds during the month of January prevented safe access by boat to the areas identified on Figure 3. Algal and crustacean growths in these small areas were hazardous for the surveyor to access by foot. Photographs of these areas taken at the seasonally low tides indicate that no movement of the armored cap has occurred in these areas.

## Survey Tolerance Requirements

The OMM Plan requires that each survey be compared with the prior completed survey using the following criteria:

1. Areas with elevations that are within 6 inches of the previous survey require no action.
2. Contiguous areas with elevation changes exceeding plus or minus 6 inches trigger a review of the survey benchmarks for accuracy or movement.
3. Areas where surveyed elevations are 6 inches higher or lower than the prior survey for a contiguous area larger than 30 feet by 30 feet will require probing to measure the cap thickness.

## **Survey Results**

The survey for this quarterly inspection event was conducted by Hydrographic Consultants, Ltd. on January 27, 2012 until January 31, 2012. Figure 3 displays the completed survey. As previously discussed, limited portions of the survey area could not be accessed due to low tides and unsafe shallow-water walking conditions and are indicated by a distinct hatching on Figure 3.

This survey dataset was compared to the baseline survey<sup>1</sup> to evaluate the differences in the top of armor cap elevation between surveys. These differences are provided in the differences plot on Figure 3.

The threshold limits established by the OMM Plan ( $\pm 0.5$  foot over a 30 foot by 30 foot area) were not exceeded and probing was not required.

## **Repairs to TCRA Construction Elements**

There were no TCRA construction elements identified as deficient or damaged during this inspection event; therefore, no repairs were required in response to the January 2012 armored cap inspection.

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<sup>1</sup> Hydrographic Consultants, Ltd. conducted the TCRA post-construction baseline survey; the baseline survey event was completed September 2, 2011.

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**Inspection Summary**

The visual inspection event did not identify damaged or otherwise deficient areas in the armored cap, fence, or signage. The “No Trespassing” signs positioned around the Western Cell were reoriented and their brackets tightened during the inspection. No further repair requirements were identified.

With regard to the armored cap survey, the small areas identified as increases and decreases in elevation can be attributed to the horizontal and vertical accuracy of the survey, minor shifts in track line location from the baseline survey, elevation data recorded in the crevices between rock surfaces, or other related measuring inaccuracies. The potential for these inaccuracies to exist was confirmed by the surveyor after reviewing the data. The photographs taken in the eastern cell at these locations during low tides indicate that the armored cap is in place, as constructed.

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## References

Anchor QEA, LLC (Anchor QEA), 2010. *Removal Action Work Plan*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. November 2010.

Anchor QEA, 2011a. *Removal Action Work Plan*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. Revised February 2011.

Anchor QEA, 2011b. *Draft Removal Action Construction Report*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6, on behalf of McGinnes Industrial Maintenance Corporation, and International Paper Company. September 2011.

USEPA, 2010a. *Administrative Settlement Agreement and Order on Consent for Removal Action*. U.S. Environmental Protection Agency Region 6 CERCLA Docket No. 06-03-10. In the matter of: San Jacinto River Waste Pits Superfund Site Pasadena, Harris County, Texas. International Paper Company & McGinnes Industrial Management Corporation, Respondents.

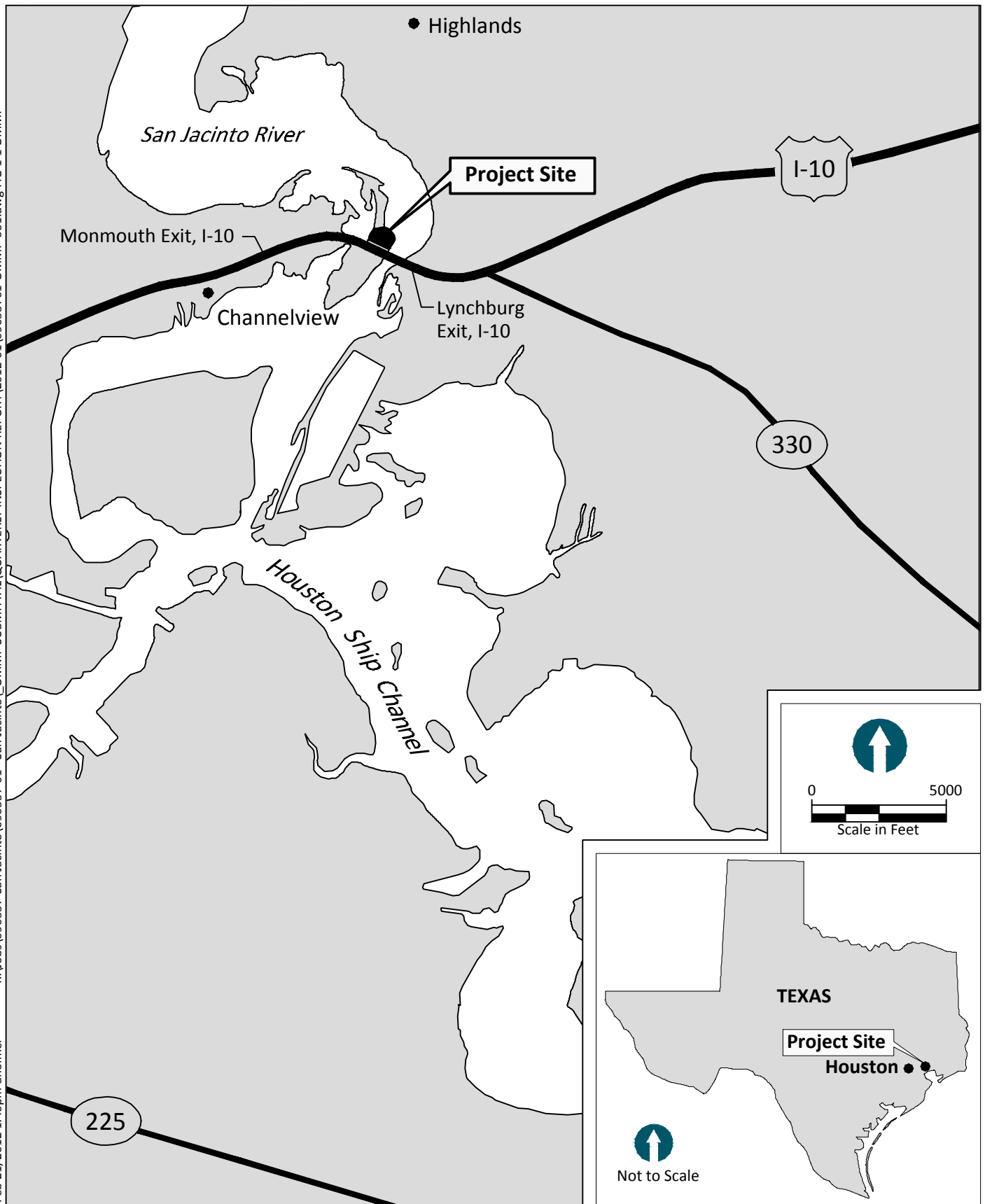
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## FIGURES

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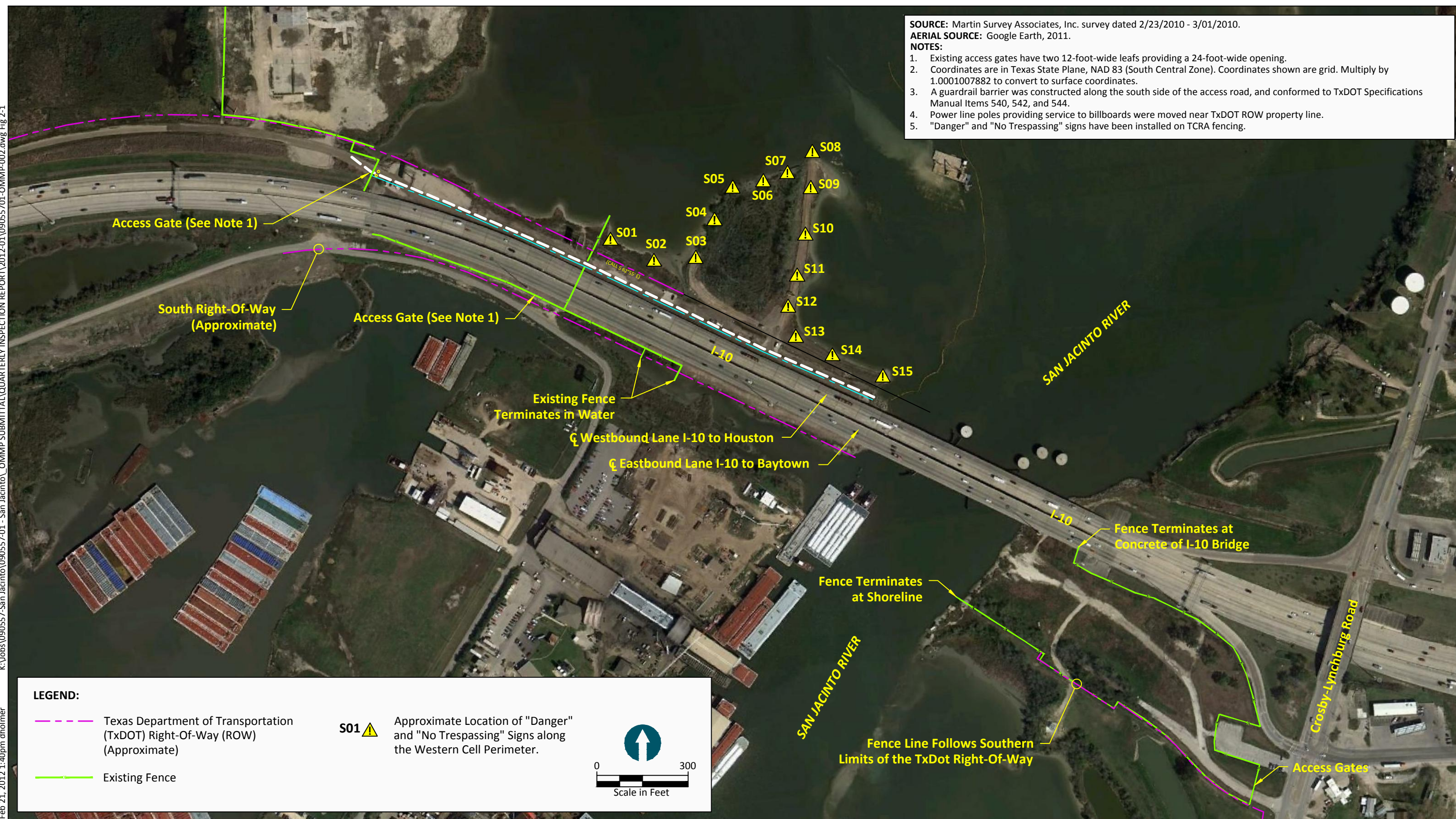


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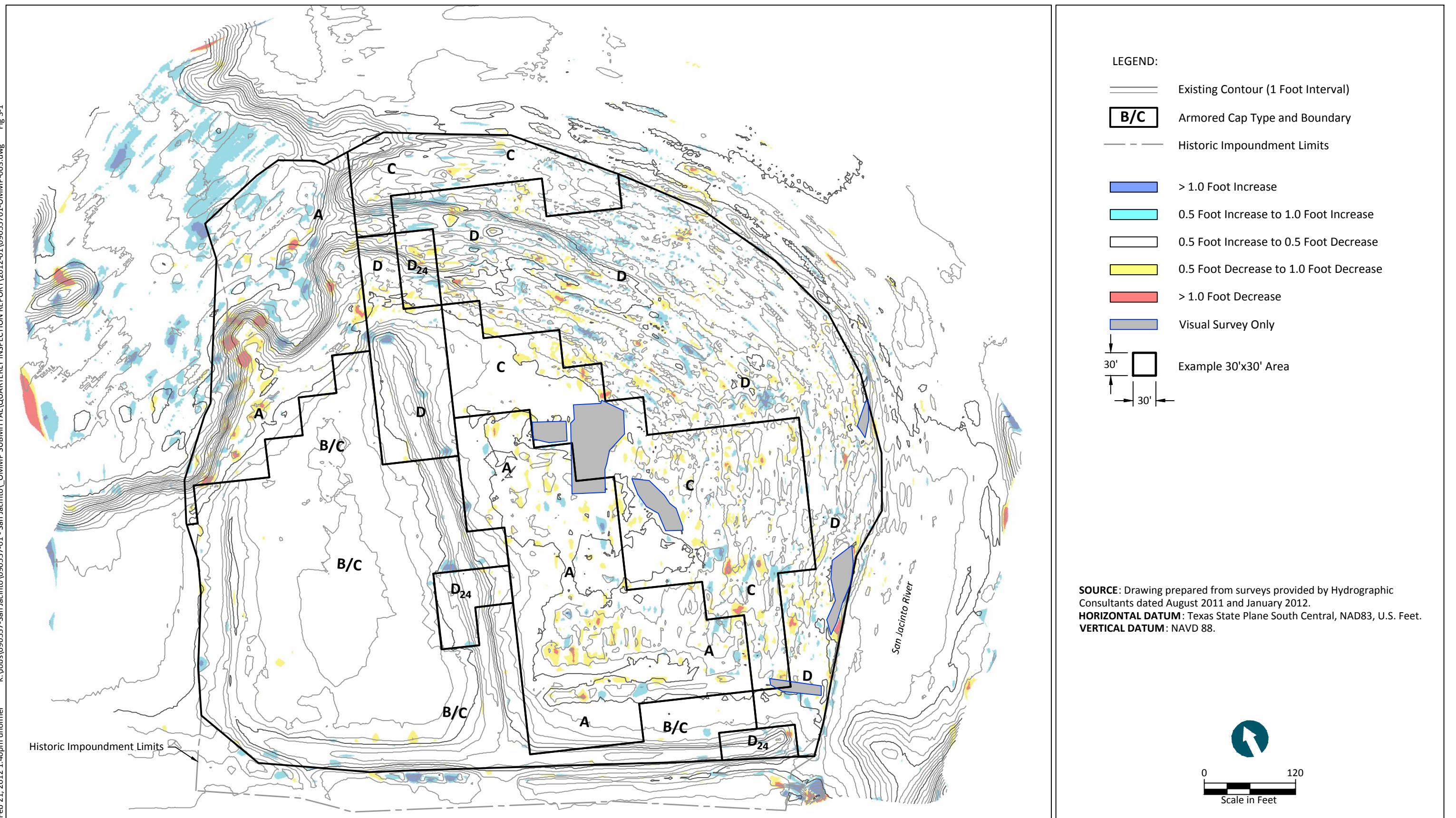




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# APPENDIX A

## INSPECTION PHOTOGRAPHIC LOG

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Photo: 01 View of Eastern Cell from the Central Berm (view east)



Photo: 02 View of Western Cell from the Central Berm (view northwest)



Photo: 03 View of Western Cell and Central Berm from the Central Berm (view north)



Photo: 04 View of Eastern Cell; photo shows intact armored cap for areas unable to be surveyed (view northeast)



Photo: 05 View of Eastern Cell from the Southern Berm (view northeast)



Photo: 06 View of Eastern Cell from the Southern Berm (view northeast)



Photo: 07 View of Eastern Cell and Central Berm from the Eastern Cell (view northwest)



Photo: 08 View of Eastern Cell (central portion of upland rock) from the Southern Berm; photo shows intact armored cap for areas unable to be surveyed (view north)





Photo: 09 View of Eastern Cell (eastern perimeter) from the Southern Berm; photo shows intact armored cap for areas unable to be surveyed (view northeast)



Photo: 10 View of Eastern Cell (central portion of upland rock) from the Southern Berm; photo shows intact armored cap for areas unable to be surveyed (view north)



Photo: 11 View of southeast portion of Eastern Cell; I-10 Bridge in the background (view south)



Photo: 12 View of thickened edge Eastern Cell adjacent to the San Jacinto River; photo shows intact armored cap for areas unable to be surveyed (view north)





Photo: 13 View of Eastern Cell from the thickened edge along the eastern boundary; photo shows intact armored cap for areas unable to be surveyed; foreground shows rust/waterline on the post (view west)



Photo: 14 View of thickened edge of Eastern Cell; photo shows intact armored cap for areas unable to be surveyed; barges on the eastern bank of the San Jacinto River in the background (view northeast)



Photo: 15 Fencing at the I-10 Bridge west bank abutment on the north side (view south)



Photo: 16 Fencing extending from the I-10 Bridge west bank abutment on the north side (view east)





Photo: 17 Fencing extending from the I-10 Bridge west bank abutment on the north side (view northeast)



Photo: 18 Northern perimeter fence along the access road to the Northern Impoundments (view north)



Photo: 19 Northern perimeter fence along the access road to the Northern Impoundments (view north)



Photo: 20 Northern perimeter fence along the access road to the Northern Impoundments near SJRF property (view northeast)





Photo: 21 South perimeter fence along the I-10 Bridge west bank access road to the southern peninsula area (south of Bridge; view southeast)



Photo: 22 South perimeter fence (at the I-10 Bridge west bank abutment) along the access road to the southern peninsula area (south of Bridge; view east)



Photo: 23 South perimeter fence along the I-10 Bridge west bank access road to the southern peninsula area (south of Bridge; view southeast)



Photo: 24 South perimeter fence along the I-10 Bridge west bank access road to the southern peninsula area (south of Bridge; view northeast)





Photo: 25 Entrance at Crosby-Lynchburg Road, I-10 corridor, east bank (view south)



Photo: 26 Entrance at Crosby-Lynchburg Road (view east)



Photo: 27 Fence along southern area near Crosby-Lynchburg Road (view west)



Photo: 28 South fence boundary abutting Coastal Water Authority property (view east)





Photo: 29 Gate at Coastal Water Authority property entrance (view west)



Photo: 30 Fence adjacent to Coastal Water Authority property



Photo: 31 Gate leading to radio/cell tower on east bank of the River on Coastal Water Authority property (view southwest)



Photo 32: Fence adjacent to Coastal Water Authority property (view west)





Photo 33: Fence terminus at the eastern bank of the River south of I-10 (view southwest)



Photo: 34 Fencing at the I-10 Bridge abutment on the south side, east bank near Crosby-Lynchburg Road (view east)



Photo: 35 South fenced area, east bank along I-10 near Crosby-Lynchburg Road (view south)



Photo: 36 South fenced area, east bank along I-10 near Crosby-Lynchburg Road (view southeast)





Photo: 37 South fenced area, east bank along I-10 near Crosby-Lynchburg Road (view south)



Photo: 38 South fenced area, east bank along I-10 near Crosby-Lynchburg Road (view south)



Photo: 39 Fencing along the I-10 Crosby-Lynchburg Road exit; corner at adjacent parking lot (view east)



Photo: 40 Fencing along the adjacent parking lot (view southwest)





Photo: 41 South perimeter fence (at the I-10 Bridge west bank abutment) along the I-10 Bridge west bank access road to the southern peninsula area (south of Bridge; view northwest)



Photo: 42 South perimeter fence along the I-10 Bridge west bank access road to the southern peninsula area (south of Bridge; view southeast)



Photo: 43 South perimeter fence along the I-10 Bridge west bank access road to the southern peninsula area (south of Bridge; view northwest)



Photo: 44 South perimeter fence along the I-10 Bridge west bank access road to the southern peninsula area; gate and jersey barriers on left side; perpendicular fence segment to the right (south of Bridge; view northwest)





Photo: 45 South perimeter fence along the I-10 Bridge west bank access road to the southern peninsula area (south of Bridge; view southeast)



Photo: 46 South perimeter fence along the I-10 Bridge west bank access road to the southern peninsula area; terminus in the shallow water area (south of Bridge; view west)



Photo: 47 USEPA Superfund Public Notice Sign at the Northern Impoundments



Photo: 48 Silt fencing along the northern shoreline of the Western Cell (view northeast)





Photo: 49 Silt fencing along the northern shoreline of the Western Cell (view west)



Photo: 50 Site Warning Sign (S01) along the shoreline adjacent to the Western Cell



Photo: 51 Site Warning Sign (S11) along the Central Berm



Photo: 52 Site Warning Sign (S15) along the Southern Berm